Amendments to the Claims:

The following listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method for the production of a modified carbon material, having the following steps:

Generation of a high-frequency field in a chamber of a plasmatron;

Introduction of a plasma gas into chamber, wherein the oxygen content in the plasma gas amounts from 0.01 to 10 vol %;

Generation of a plasma with the plasma gas by the high-frequency field; and

Introduction of initial material into the plasma.

2. (Original) The method according to claim 1 for the production of a modified carbon material, in particular a carbon material, which has graphitic and/or non-graphitic carbon components and also, optionally, hydrocarbon components.

3. (Previously presented) The method according to claim 1, further characterized in that the initial material is introduced by blowing in material particles along with a transport gas into chamber.

4. (Original) The method according to claim 3, further characterized in that the initial material is conducted through the plasma by means of an inlet pressure of the transport gas and, after a

defined residence time in the plasma, leaves the plasma on the side essentially lying opposite the inlet side of the plasma.

5. (Previously presented) The method according to claim 1, further characterized in that this method is conducted at normal pressure or approximately at normal pressure.

6. (Previously presented) The method according to claim 1, further characterized in that the initial material is supplied to the plasma underneath an inductor of the plasmatron.

7. (Previously presented) The method according to claim 1, further characterized in that it has the additional step of separating the modified material in chamber by means of a mechanical filter.

8. (Previously presented) The method according to claim 1, further characterized in that the plasma gas has a defined oxygen partial pressure, in particular from 10 to 10,000 Pa.

9. (Canceled)

10. (Previously presented) The method according to claim 1, further characterized in that the plasma gas contains an inert gas.

11. (Previously presented) The method according to claim 1, further characterized in that, in

addition, a reaction gas and/or a quenching gas is introduced into the chamber.

12. (Previously presented) The method according to claim 1, further characterized in that the high-frequency field has a frequency in a range from 1 to 30 MHz.

13. (Currently amended) A plasmatron for the production of a modified material, wherein the plasmatron has means for conducting the method of claim 1, said plasmatron having:
a chamber, at least one high-frequency inductor disposed in at least one region of chamber, a gas supply line for introducing a plasma gas into the region of a high-frequency field generated by high-frequency inductor, and a material supply line for blowing in initial material with a transport gas into the plasma generated by high-frequency inductor with the plasma gas.

14. (Canceled)

15. (Previously presented) The plasmatron according to claim 13, further characterized in that the material supply line reaches up to the edge of the plasma generated by high-frequency inductor.

16. (Previously presented) The plasmatron according to claim 13, further characterized in that the material supply line is joined with a powder transport device for generation of an initial material/gas mixture.

17. (Previously presented) The plasmatron according to claim 13, further characterized in that the high-frequency inductor is joined with a power generator for generating high-frequency current.

18. (Previously presented) The plasmatron according to claim 13, further characterized in that it has a gas supply line for introducing a reaction gas and/or a quenching gas, which is disposed behind the inductor away from the inlet side of the plasma.

19. (Previously presented) The plasmatron according to claim 13, further characterized in that, in addition, it has a mechanical filter for separating the modified initial material.

20. (Currently amended) A carbon material with edges modified by action of plasma and oxygen, characterized in that the modified edges have a rounded shape in comparison to unmodified edges.

21. (Currently amended) A carbon material, which can be produced with the method according to claim 1 ~~or with a plasmatron for the production of a modified material, having: a chamber, at least one high-frequency inductor disposed in at least one region of chamber, a gas supply line for introducing a plasma gas into the region of a high-frequency field generated by high-frequency inductor, and a material supply line for blowing in initial material with a transport gas into the plasma generated by high-frequency inductor with the plasma gas~~.

22. (Canceled)

23. (Previously presented) The carbon material according to claim 20, further characterized in that it has an irreversible absorbing capacity for alkali and/or alkaline-earth ions that is reduced in comparison to untreated initial carbon material.

24. (Previously presented) The carbon material according to claim 20, further characterized in that this material has graphitic and/or non-graphitic carbon components and also, optionally, hydrocarbon components.

25. (Currently amended) ~~Use of~~ An electrode material for a lithium-ion rechargeable battery, said electrode material comprising a carbon material according to claim 20 or which can be produced by a method comprising the steps of generation of a high-frequency field in a chamber of a plasmatron; introduction of a plasma gas into chamber; generation of a plasma with the plasma gas by the high-frequency field; and introduction of initial material into the plasma or with a plasmatron having: a chamber, at least one high-frequency inductor disposed in at least one region of chamber, a gas supply line for introducing a plasma gas into the region of a high-frequency field generated by high-frequency inductor, and a material supply line for blowing in initial material with a transport gas into the plasma generated by high-frequency inductor with the plasma gas ~~as an electrode material for a lithium-ion rechargeable battery~~.

26. (Original) The use according to claim 25, further characterized in that the electrode material

is an anode material.

27. (Previously presented) The use according to claim 25, further characterized in that the carbon material is shaped into an anode.

28. (Currently amended) ~~Use of~~ An additive comprising a carbon material according to claim 20 or which can be produced by a method comprising the steps of generation of a high-frequency field in a chamber of a plasmatron; introduction of a plasma gas into chamber; generation of a plasma with the plasma gas by the high-frequency field; and introduction of initial material into the plasma or with a plasmatron having: a chamber, at least one high-frequency inductor disposed in at least one region of chamber, a gas supply line for introducing a plasma gas into the region of a high-frequency field generated by high-frequency inductor, and a material supply line for blowing in initial material with a transport gas into the plasma generated by high-frequency inductor with the plasma gas ~~as an additive~~.

29. (Original) The use according to claim 28, further characterized in that the carbon material is mixed with an initial material in order to form a composite material.